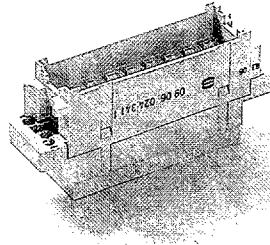


Number of contacts

max. 24



Interface connector I

Identification	Number of contacts	Part No.	Drawing	Dimensions in mm
<p>Interface connector I for male crimp contacts</p> <p>Order contacts separately</p>	24	09 26 024 3411		

2F/FC

Identification	Wire gauge	Part No.	Performance levels according to DIN 41 612, explanations page 10
Male crimp contacts		2	1
Bandoliered contacts (approx. 2500 pieces)	1	09 06 000 9564*	09 06 000 9544*
	2	09 06 000 9561*	09 06 000 9541
	3	09 06 000 9562*	09 06 000 9542
Individual contacts	1	09 06 000 9574*	09 06 000 9554*
	2	09 06 000 9571*	09 06 000 9551
	3	09 06 000 9572*	09 06 000 9552

Wire gauge	Insulation Ø
mm ²	mm
AWG	
1	0.09 – 0.25
2	0.14 – 0.56
3	0.5 – 1.5
	28 – 24
	26 – 20
	20 – 16
	0.7 – 1.5
	0.8 – 2.0
	1.6 – 2.8

3.5 + 0.5 mm of insulation is stripped from the wires to be crimped

Crimping tools page 91

Identification

*Not normally kept in stock

Economic and Reliable Connections

The Gds connector system for use in 19" racks to DIN 41 494

Gds A series according to

DIN	41 612
VG	95 324 ¹⁾
IEC	603-2
MIL-C-	55 302
BT	222
BS	9525
HE	12
NFC	93-420
UL-gelistet	
CSA	018753
CECC	75 100

Developed for economical assembly of electronic plant and equipment

HARTING offer the most comprehensive range of highly versatile connectors complemented by many styles of shell housings making a complete interconnection and interface system.

¹⁾Connectors can be manufactured to VG 95 324 the standard of the German Federal Agency for Defence Engineering and Procurement (BWB) also with the VDE electronic symbol of approval.



The division Printed Board Connectors Gds A is certified according to DIN EN ISO 9001

The advantages

- Indirect mating (male/female)
- Automated production techniques
- Continuous quality assurance
- 15-96 contacts
- Complete interconnection system
- Numerous interface connectors
- A wide variety of hoods
- Many termination techniques provide for the lowest installed cost
- Contacts selectively gold-plated
- Tinned terminations for increased solderability

The terminations

- Wrap post for automated wiring
- Straight and angled solder pins for printed circuits
- Solder lugs for discrete wiring
- Press-in technique for back planes
- Crimp contacts for selective loading
- Insulation displacement contacts for mass termination
- Faston blades for higher power discrete wiring
- Cage-clamp contacts provide low cost connection for solid or stranded wires

For "non standard applications" we can manufacture designs to match your requirements. Please discuss requirements with us.

HARTING printed board connectors incorporate the latest design features and provide the assurance of high quality and reliability with economy.

Sales Department
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General information

It is the user's responsibility to check whether the components illustrated in this catalogue comply with different regulations from those stated in special fields of application which we are unable to foresee.

We reserve the right to modify designs in order to improve quality, keep pace with technological advancement or meet particular requirements in production.

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Performance level 3 as per DIN 41 612, part 5

50 mating cycles.
Then visual inspection no gas test.
No functional impairment.

Part-number-explanation 09 7 . . .

Performance level 2 as per DIN 41 612, part 5

400 mating cycles.
200 mating cycles 4 days gas test using 10 ppm SO₂.
Measurement of contact resistance.
200 mating cycles then visual inspection. No abrasion of the contact finish through to the base material.
No functional impairment.

Part-number-explanation 09 6 . . .

Performance level 1 as per DIN 41 612, part 5

500 mating cycles.
250 mating cycles 21 days gas test using 10 ppm SO₂.
Measurement of contact resistance.
250 mating cycles then visual inspection. No abrasion of the contact finish through to the base material.
No functional impairment.

Part-number-explanation 09 2 . . .

VG Version as per VG 95 324, part 1

500 mating cycles – then 1 day gas test using 10.000 ppm SO₂ and 1 day gas test using 10.000 ppm H₂S.
Then visual inspection. No abrasion of the contact finish through to the base material. No functional impairment.

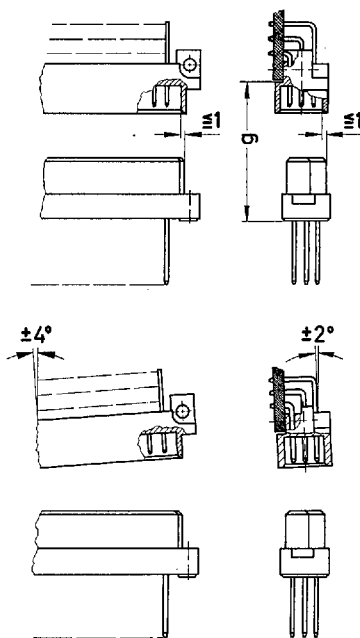
Part-number-explanation 09 4 . . .

Other plating finishes available on request.

Mating conditions

To ensure reliable connections and prevent unnecessary damage, please refer to the application data diagrams.

These recommendations are set out in DIN 41 612 P. 1. The connectors shall not be coupled and decoupled under electrical load.

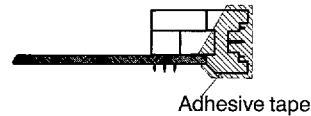


g = 12,4 - 14,2

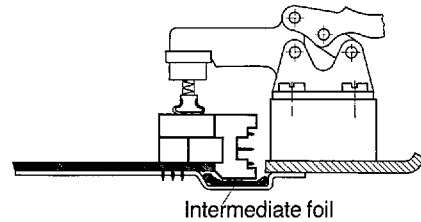
Soldering the male connectors into P.C. Boards

The male connectors of the Gds A series should be protected when soldering using dip, flow or film soldering baths, against contamination as a result of soldering operations or deformation of the connector bodies as a result of overheating.

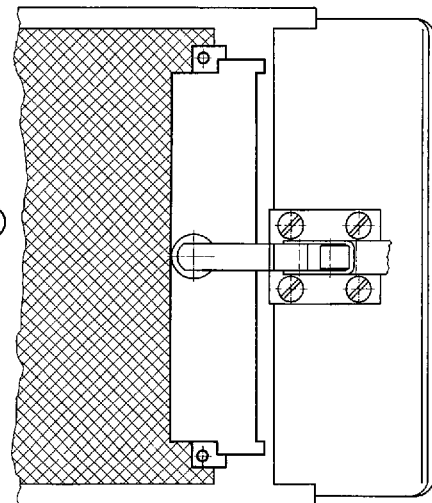
- ① For prototypes and short runs cover the connectors with an industrial adhesive tape, e.g. Tesaband 4657 grey. Tape the underside of the connector moulding and adjacent parts of the P.C. Board and tape up the open end of the connector. This will prevent heat and gases from the soldering apparatus damaging the connector. About 140 + 5 mm of tape should be sufficient.
- ② For large run production a jig is recommended. This has a protective cover with a fast action mechanical locking device that shields the connector from the gas and heat generated by the soldering apparatus. For additional protection a foil can be used covering parts not to be soldered.



①



②



Number of contacts	
Gds A-F/FC	48, 32
Gds A-FM	45
Gds A-2F/FC	max. 24
Contact spacing (mm)	5.08
Working current	6 A max.
see current carrying capacity chart	
Clearance	≧ 1.6 mm
Creepage	≧ 3 mm
Working voltage	according to the safety regulations of the equipment. Explanations page 6
The working voltage also depends on the clearance and creepage dimensions of the P.C. Board itself and the associated wiring	
Test voltage $U_{r.m.s.}$	1.55 kV (contact-contact) 2.5 kV (contact-ground)
Contact resistance	≧ 15 mΩ ≧ 20 mΩ including crimp connections
Insulation resistance	≧ 10^{12} Ω
Temperature range	-65°C + 125°C
The higher temperature limit includes the local ambient and heating effect of the contacts under load	
Degree of protection for crimp terminal	IP 20 according to DIN 40050
Electrical termination	
Male connector	Angled solder pins 0.6 x 0.6 mm for P.C.B. connections $\varnothing 0.8 + 0.3$ mm Straight solder pins 0.6 x 0.6 mm for P.C.B. connections $\varnothing 1 \pm 0.1$ mm to IEC 326 Wrap posts 1 x 1 mm diagonal 1.34–1.45 mm Crimp terminal 0.09–1.5 mm ²
Female connector	Wrap posts 1 x 1 mm diagonal 1.34–1.45 mm Press-in pins for P.C.B. connections $\varnothing 1.0 \pm 0.1$ mm Solder pins for P.C.B. connections $\varnothing 0.8 + 0.3$ mm Angled solder pins 1 x 1 mm for P.C.B. connections $\varnothing 1.6 \pm 0.1$ mm Solder lugs Crimp terminal 0.09–1.5 mm ²
Distributor	Crimp terminal 0.09–1.5 mm ²
Insertion and withdrawal force	48 way ≧ 75 N 45 way ≧ 70 N 32 way ≧ 50 N 24 way ≧ 37 N
Materials	
Mouldings	Thermoplastic resin; glass-fibre filled
Contacts	Copper alloy
Contact surface	Contact zone: selectively gold plated according to performance level ¹⁾ Termination zone: tinned

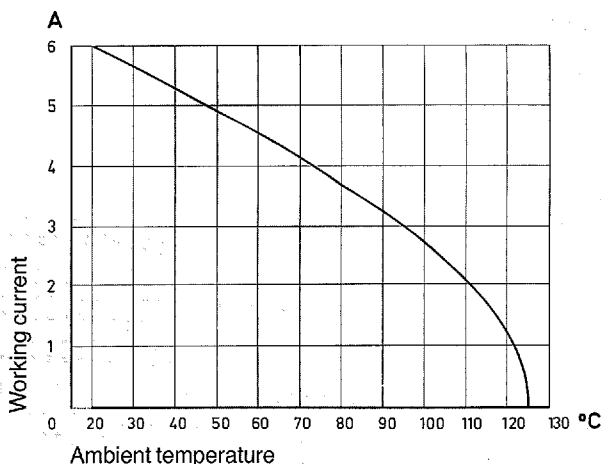
¹⁾ Explanations of performance levels page 10

Mating conditions page 10
Coding systems page 88

Current carrying capacity

The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN 41 640, part 3.

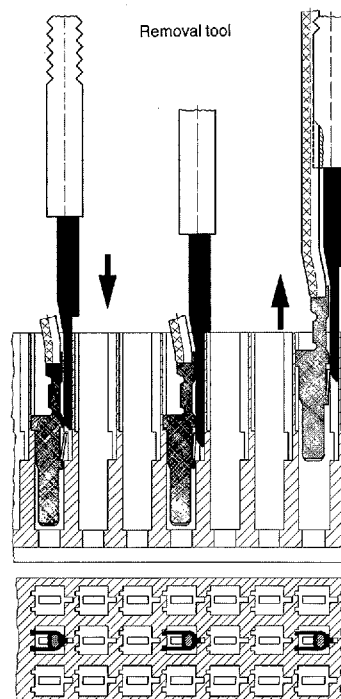


Fitting the crimp contacts

After crimping the wires onto the contacts the crimp contacts are correctly orientated and inserted into cavities in the connector body in the required configuration. They snap into position and are firmly held in place. A light pull on the wire will check that they are correctly located. When using stranded wire having a gauge below 0.37 mm², an insertion tool is required.

Removing the crimp contacts

The removal tool is inserted into a slot on the side of the respective crimp cavity. This action compresses the contact retaining spring and the contact can then be easily withdrawn using a light pull on the wire. This action will cause no damage to the contact/wire which can be repositioned/refitted as necessary. The diagram demonstrates the crimp removal procedure (max. 5 x).



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